

## CLAIMS:

7. The method of claim 1 wherein the dehydratases are selected from the group consisting of glycerol dehydratase and diol dehydratase.

8. The method of claim 1 further comprising providing genes encoding an enzyme selected from the group consisting of aldehyde dehydrogenase and 1,3-propanediol oxidoreductase.

15. The system of claim 9 wherein the vicinal diol dehydratase is selected from the group consisting of glycerol dehydratase and diol dehydratase.

16. The system of claim 9 further comprising genes encoding an enzyme selected from the group consisting of aldehyde dehydrogenase and 1,3-propanediol oxidoreductase.